

W Claim:

1. An aqueous contact lens disinfecting solution comprising a buffer and less than 1 ppm of a polymeric antimicrobial agent;
wherein said solution has a tonicity of 200 to 450 mOsm/kg, a pH of between 6 and 8, and a concentration of chloride ions below 1500 ppm.
2. An aqueous contact lens disinfecting solution as claimed in Claim 1, wherein the total concentration of chloride ions and phosphate ions below 1500 ppm.
3. An aqueous contact lens disinfecting solution as claimed in Claim 1, wherein said polymeric antimicrobial agent is PHMB.
4. An aqueous contact lens disinfecting solution as claimed in Claim 3, wherein the concentration of said PHMB is less than or equal to 0.5 ppm.
5. An aqueous contact lens disinfecting solution as claimed in Claim 4, wherein said solution will result in at least a 1 log reduction in *C. albicans* within 15 minutes of contact.
6. An aqueous contact lens disinfecting solution as claimed in Claim 3, wherein the concentration of said PHMB is less than or equal to 0.25 ppm.
7. An aqueous contact lens disinfecting solution as claimed in Claim 6, wherein said solution will result in at least at least a 1.5 log reduction in *C. albicans* within 15 minutes of contact.
8. An aqueous contact lens disinfecting solution as claimed in Claim 1, further comprising a tonicity agent selected from the group consisting of non-halide containing electrolytes, non-electrolytic compounds, and mixtures thereof; wherein the majority of the tonicity of the solution is provided by said tonicity agent
9. An aqueous contact lens disinfecting solution as claimed in Claim 8, wherein said tonicity agent is sorbitol.
10. An aqueous contact lens disinfecting solution as claimed in Claim 9, the sorbitol is present in an amount of at least 2%, by weight, of said solution.
11. An aqueous contact lens disinfecting solution as claimed in Claim 1, wherein the buffer is a phosphate buffer at a concentration less than 0.1%, and the total concentration of chloride ions and phosphate ions below 1000 ppm.

12. An aqueous contact lens disinfecting solution as claimed in Claim 11, wherein said phosphate buffer concentration is less than 0.06%.

13. An aqueous contact lens disinfecting solution as claimed in Claim 12, wherein said phosphate buffer concentration is from 0.005% to 0.015%.

14. An aqueous contact lens disinfecting solution as claimed in Claim 1, further comprising at least one surface-active agent.

15. An aqueous contact lens disinfecting solution as claimed in Claim 14, wherein said solution contains both tyloxapol and a poloxamer.

16. An aqueous contact lens disinfecting solution as claimed in Claim 1, further comprising dexpanthenol.

17. An aqueous contact lens disinfecting solution as claimed in Claim 1, further comprising a chelating agent.

18. An aqueous contact lens disinfecting solution as claimed in Claim 17, wherein said chelating agent is EDTA.

19. An aqueous contact lens disinfecting solution as claimed in Claim 1, further comprising a viscosity enhancing agent.

20. An aqueous contact lens disinfecting solution as claimed in Claim 19, wherein said viscosity enhancing agent is PVP.

21. An aqueous contact lens disinfecting solution comprising:

- (a) less than 1 ppm PHMB;
- (a) 0.005% to 1% dexpanthenol;
- (b) 0.005% to 1% surface active agent;
- (c) less than 0.06% phosphate buffer;
- (d) less than 0.2% chelating agent;
- (e) 0.01% to 1% viscosity enhancing agent; and
- (f) at least 1% of a tonicity agent selected from the group consisting of glycerol, urea, propylene glycol, sodium bicarbonate, sugars, alcohols, polyols, and mixtures thereof;

wherein said solution has a tonicity of 200 to 450 mOsm/kg, a pH of between 6 and 8, and a concentration of chloride ions below 1000 ppm.

22. An aqueous contact lens disinfecting solution as claimed in Claim 21, wherein said surface active agent selected from the group consisting of tyloxapol, polaxamers, and mixtures thereof; said chelating agent is EDTA; said viscosity enhancing agent is PVP; and said tonicity agent is sorbitol.

23. An aqueous contact lens disinfecting solution as claimed in Claim 21, comprising:

- (a) less than 0.5 ppm PHMB;
- (b) 0.01% to 0.1% dexpanthenol;
- (c) 0.001% to 0.5% surface active agent;
- (d) 0.001% to 0.05% phosphate buffer;
- (e) 0.1% to 0.3% viscosity enhancing agent; and
- (f) at least 4% of a tonicity agent selected from the group consisting of glycerol, urea, propylene glycol, sodium bicarbonate, sugars, alcohols, polyols, and mixtures thereof;

wherein said solution has a tonicity of 200 to 450 mOsm/kg, a pH of between 6 and 8, and a concentration of chloride ions below 500 ppm.

24. An aqueous contact lens disinfecting solution as claimed in Claim 23, wherein said surface active agent selected from the group consisting of tyloxapol, polaxamers, and mixtures thereof; said chelating agent is EDTA; said viscosity enhancing agent is PVP; and said tonicity agent is sorbitol.

25. A method for cleaning and disinfecting a contact lens comprising contacting said contact lens with an aqueous solution comprising a buffer and less than 1 ppm of a polymeric antimicrobial agent; wherein said solution has a tonicity of 200 to 450 mOsm/kg, a pH of between 6 and 8, and a concentration of chloride ions below 1500 ppm.

26. An method as claimed in Claim 25, wherein said polymeric antimicrobial agent is PHMB.

27. An method as claimed in Claim 26, wherein the concentration of said PHMB is less than or equal to 0.5 ppm.

28. An method as claimed in Claim 27, wherein said method results in at least at least a 1 log reduction in *C. albicans* upon the lens within 15 minutes of contact.

29. An method as claimed in Claim 26, wherein the concentration of said PHMB is less than or equal to 0.25 ppm.

30. An method as claimed in Claim 29, wherein said method results in at least at least a 1.5 log reduction in *C. albicans* upon the lens within 15 minutes of contact.